

# Fluid (water and drinks) and hydration

Good hydration, or drinking enough fluid, is important for us all. Not drinking enough means we are likely to be dehydrated.

Water is essential for life. It is a major part of the body and has many functions including transporting nutrients and compounds in blood, and removing waste products through urine. Fluid also helps to regulate body temperature through sweating and acts as a lubricant and shock absorber in joints.

Drinking enough fluid is vital to maintain good health in the short and long term. Importantly, it can help with alertness and concentration and help to prevent constipation. It is also associated with a reduced risk of urinary tract infections, kidney stones, and damage to kidneys which could lead to chronic kidney disease. Some studies have shown that frequent dehydration, even if mild, can lead to damage to the kidneys.

## How much do I need to drink?

The table below shows the recommended amount of water that should be taken as drinks per day. Drinks provide around 70-80% of our water needs. The remaining 20-30% comes from foods such as soup, stews, some fruits, and vegetables which contain a lot of water.

### Recommended adequate intakes of water from drinks

	Age	Adequate water intake from drinks (ml/day)
Infants	7-12 months	640 – 800ml
Children	1-2 years	880 – 960ml
	2-3 years	1040ml
	4-8 years	1280ml
	9-13 years	Boys: 1680ml Girls: 1520ml
	> 14 years	As adults
Adults including older people		Men: 2000ml Women: 1600ml
Those who are pregnant		As adults + 300ml per day
Those who are lactating		As adults + 600-700ml per day

Source: EFSA

Infants should exclusively drink breastmilk or formula as their primary source of fluids until they reach six months of age. After six months, introduce water between meals, alongside continued breastfeeding or infant formula. Some formula-fed infants may need extra (cooled boiled) water in hot weather. These are average values.

Your individual need will depend on many factors including temperature and humidity, and exercise. Warm and dry environments such as hot sunny days and air-conditioned offices, or strenuous physical exercise can increase the need for water as they speed up the evaporation of sweat on the skin.

## How do I know if I am drinking enough?

Thirst is one way we regulate hydration in the body. But when you drink, you stop feeling thirsty before your body is completely rehydrated. Urine colour is another very useful indicator.

Your urine should be a pale straw colour which shows you are well hydrated. Dark yellow urine is often a sign of dehydration, but in a few cases may have other causes. If you are concerned, contact your GP.

The sensation of thirst is not a useful measure in children and older adults. It is important to encourage these groups to drink regularly rather than as a response to thirst.

Well-hydrated infants and toddlers typically have regular wet nappies.



## What happens if I don't drink enough?

If you don't consume enough fluids you will become dehydrated. This can have major impacts on your health and wellbeing.

Dehydration can lead to:

- Headaches
- Tiredness
- Confusion
- Lack of concentration
- Constipation
- Urinary tract infection (UTI)

Some people may be at a higher risk of dehydration if they:

- are dependent on others for drinks
- have difficulty swallowing
- have diarrhoea and or vomiting
- have a high temperature (fever)
- have not drunk enough after strenuous physical activity
- avoid drinking due to lack of breaks or toilet facilities
- take certain medications

It can be hard to spot dehydration. The first thing you will notice is increased thirst and a dry sticky mouth. Darker coloured urine is also a good indicator.

Dehydration is a common problem in older people. It can be particularly difficult to detect as signs such as urine colour, thirst and a dry mouth are not reliable indicators in older adults. Find out more in our 'Hydration in older adults' food fact sheet.

## What type of drinks should I have?

A variety of drinks can help to maintain fluid levels in the body, and it is really a matter of personal preference. Drinking water is one of the best ways to hydrate as it is calorie and sugar free. Other choices such as unsweetened tea and coffee or milk (or alternatives) also provide fluid and help to maintain hydration.

Water and milk are the best fluids for children. Cow's milk can be introduced as a main drink when infants are over one year of age. Calcium-fortified plant-based milks are not nutritionally adequate as a main drink for infants in their first year and should not be given as a main source of milk until the age of two unless advised by your dietitian.

Some drinks contain added sugar such as regular fizzy and still drinks. These should only be drunk occasionally and in small amounts. Pure vegetable or fruit juices and smoothies do provide water and other nutrients but also contain free sugars, so limit to one small cup per day. This also counts towards your 5-a-day for adults and children.

Children under two years should not be given any sweetened or sugar-containing drinks. Fruit juice should only be given if diluted. Pure, unsweetened fruit juice may be offered after one year of age, diluted with water in a ratio of one part juice to 10 parts water. After two years, pure, unsweetened fruit juice can be diluted 50% with water. Offer a small portion (up to 125ml) no more than once daily, as fruit juice is high in sugar and may be harmful to teeth.

If you are pregnant, keep an eye on the amount of caffeine you are consuming. It is recommended to limit caffeine to 200mg a day (a cup of coffee has around 75mg caffeine). The safe limit for adults is 400mg caffeine per day.

It is not recommended to offer tea or coffee to children due to the presence of tannins, which can inhibit the absorption of iron from plant sources. Tea and coffee are also a source of caffeine which studies show can disrupt sleep patterns.

Common drink measures include:

- 1 medium sized glass ~200ml
- 1 mug ~250ml
- 1 cup ~200ml
- 1 can of fizzy drink ~330ml

## Caffeine and hydration

Caffeine has a small dehydrating effect. But the amount of water consumed in a cup or mug of tea or coffee means that overall the body benefits from the fluid consumed.



## Special considerations

Some groups are more vulnerable and may not notice feelings of dehydration, particularly children and older adults.

### Children

Children are less able to recognise the signs of dehydration so may be particularly vulnerable to dehydration - especially younger children who are less able to indicate their thirst.

- Encourage children to drink water regularly throughout the day
- Make a habit of offering plain water as the main choice of drink from a young age. This helps to encourage good habits, particularly for dental health. Cow's milk or calcium-fortified plant-based milks are also a source of fluids for children
- School children often need particular encouragement to drink as access to water may be limited and they may choose to avoid taking toilet breaks in school
- There is some evidence that children who are well hydrated perform better in attention and memory tests

### Older adults

Older adults can be at higher risk of becoming dehydrated and may need to remember to drink regularly throughout the day. Check out our fact sheet on hydration for older adults.

Active people may need to drink more water. We lose more water through sweat when exercising. It is important that this is replaced to maintain performance and health. Water is the best choice during and after most activities, but those who undertake regular strenuous physical activity may find other specific sports drinks useful too. See the Sport and Exercise Food Fact Sheet for more.

### Top tips:

- ✔ Keep hydrated by drinking little and often
- ✔ Keep a bottle or jug of water on your desk or meal table
- ✔ Unsweetened drinks like water, milk / milk alternatives and tea / coffee are all great choices
- ✔ Remind children and older adults to drink regularly
- ✔ You may need more drinks in hot weather or when you are active
- ✔ Fluid is particularly important if you are unwell (especially if you experience vomiting, diarrhoea or fever)
- ✔ Urine colour is often a quick and easy way of checking if you are hydrated, it should be a pale straw colour
- ✔ Foods high in water e.g. fruit and veg contribute to hydration

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If you need to see a dietitian, visit your GP for a referral or [bda.uk.com/find-a-dietitian](http://bda.uk.com/find-a-dietitian) for a private dietitian. You can check your dietitian is registered at [hcpc-uk.org](http://hcpc-uk.org).

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The information sources used to develop this fact sheet are available at [bda.uk.com/foodfacts](http://bda.uk.com/foodfacts)

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